

IN THE CLAIMS

1. (currently amended) A microelectronic assembly, comprising:

a) a dielectric layer having an attachment portion, the dielectric layer having a first side ~~facing in a first direction and~~ an oppositely facing second side, the first side of the dielectric layer in the attachment portion facing in a first direction, the second side of the dielectric layer in the attachment portion facing in a second direction—an attachment portion, the dielectric layer having at least one offset portion offset from the attachment portion such that the offset portion is skewed in said second direction as compared to said attachment portion;

b) a semiconductor chip assembled to the second side of the dielectric layer in the attachment portion, the first side of the dielectric layer defines a boundary of the assembly such that the entire first side is unobstructed; and

c) terminal structures carried by the offset portion of the dielectric layer for connecting the semiconductor chip with external circuitry lying at a lower level than the attachment portion.

2. (currently amended) The assembly of claim 1, wherein the attachment portion of the dielectric layer is generally substantially planar.

3. (original) The assembly of claim 1, wherein the dielectric layer has at least one bend in the dielectric layer between the attachment portion and the offset portion.

4. (currently amended) The assembly of claim 3, wherein the at least one bend comprises a first bend in a first—third

direction and a second bend in a secondfourth direction opposite to the thirdfirst direction.

5. (original) The assembly of claim 4, wherein the dielectric layer has at least one conductor extending in the bend.

6. (original) The assembly of claim 5, wherein the at least one conductor is arranged so as to support the bend in the dielectric layer.

7. (original) The assembly of claim 1, wherein the dielectric layer comprises a polymeric material molded so as to form the offset portion.

8. (currently amended) The assembly of claim 1, wherein the offset portion of the dielectric layer extends generally substantially perpendicular toin the second direction alongside away from the semiconductor chip.

9. (original) The assembly of claim 8, wherein the dielectric layer has at least one conductor, arranged so as to shield the semiconductor chip.

10. (cancelled)

11. (original) The assembly of claim 1, wherein the offset portion of the dielectric layer comprises a portion that lies outwardly of the attachment portion of the dielectric layer.

12. (original) The assembly of claim 1, wherein the dielectric layer has at least one outer end and the terminal structures are disposed at the at least one outer end.

13. (currently amended) The assembly of claim 12, wherein the at least one outer end extends generally substantially horizontally.

14. (cancelled)

15. (cancelled)

16. (original) The assembly of claim 1, further comprising a circuit element connected to the terminal structures so that the circuit element is disposed underneath the dielectric layer.

17. (original) The assembly of claim 16, wherein the terminal structures interconnect the semiconductor chip with the circuit element.

18. (original) The assembly of claim 1, wherein the dielectric layer includes traces connected to the terminal structures and connected to contacts of the semiconductor chip.

19. (original) The assembly of claim 1, wherein the semiconductor chip has a first face with contacts exposed at the first face.

20. (original) The assembly of claim 19, wherein the semiconductor chip is assembled to the attachment portion so that the first face faces in an upward direction.

21. (original) The assembly of claim 1, wherein the dielectric layer comprises a continuous sheet.

22. (original) The assembly of claim 1, wherein the terminal structures comprise bonding material.

23. (original) The assembly of claim 1, wherein the terminal structures are connected to conductors extending through the attachment portion.

24. (original) The assembly of claim 1, wherein the terminal structures comprise solder balls.

25. (currently amended) A microelectronic assembly, comprising:

a) a dielectric layer having an attachment portion, the dielectric layer having a first side, a second side outer ends lying outwardly of the attachment portion, the outer ends being offset from the attachment portion;

b) a semiconductor chip assembled to the second side of the dielectric layer at or the attachment portion, the entire first side of the dielectric layer being unobstructed; and

c) terminal structures carried by the outer ends of the dielectric layer for connecting the semiconductor chip with external circuitry.

26. (currently amended) The assembly of claim 25 wherein the attachment portion of the dielectric layer is generally substantially planar.

27. (cancelled)

28. (original) The assembly of claim 25, wherein the dielectric layer has at least one bend in the dielectric layer between the attachment portion and the outer ends.

29. (original) The assembly of claim 28, wherein the at least one bend comprises a first bend in a first direction and a second bend in a second direction opposite to the first direction.

30. (original) The assembly of claim 28, wherein the dielectric layer has at least one conductor extending in the bend.

31. (original) The assembly of claim 30, wherein the at least one conductor is arranged so as to support the bend in the dielectric layer.

32. (currently amended) The assembly of claim 25, wherein the outer ends of the dielectric layer extend generally substantially ~~in a second direction~~ away from the first side of the attachment portion of the dielectric layer ~~element alongside the semiconductor chip~~.

33. (previously presented) The assembly of claim 25, wherein the outer ends of the dielectric layer extend substantially horizontally.

34. (cancelled)

35. (cancelled)

36. (cancelled)

37. (cancelled)

38. (original) The assembly of claim 25, further comprising a circuit element connected to the terminal structures so that the circuit element is disposed underneath the dielectric layer.

39. (original) The assembly of claim 38, wherein the terminal structures interconnect the semiconductor chip with the circuit element.

40. (original) The assembly of claim 25, wherein the dielectric layer includes traces connected to the terminal structures and connected to contacts of the semiconductor chip.

41. (original) The assembly of claim 25, wherein the semiconductor chip has a first face and contacts exposed at the first face.

42. (original) The assembly of claim 41, wherein the semiconductor chip is assembled to the attachment portion so that the first face faces in an upward direction.

43. (original) The assembly of claim 25, wherein the dielectric layer comprises a continuous sheet.

44. (original) The assembly of claim 25, wherein the terminal structures comprise bonding material.

45. (original) The assembly of claim 25, wherein the terminal structures are connected to conductors extending through the attachment portion.

46. (cancelled)

47. (previously presented) A microelectronic component, comprising:

- a) a dielectric layer comprising a continuous sheet having a first side, a second side and an attachment portion for assembly with a microelectronic element, the microelectronic element being attached to the second side of the continuous sheet and the first side of the continuous sheet being clear of other elements, an offset portion offset from the attachment portion;
- b) terminal structures on the dielectric layer; and
- c) conductors attached to the terminal structures.

48. (original) The component of claim 47, wherein the terminal structures include bonding material.

49. (original) The component of claim 47, wherein the dielectric layer includes at least one bend between the attachment portion and the offset portion.

50. (original) The component of claim 49, wherein the at least one bend comprises a first bend in a first direction and a second bend in a second direction opposite the first direction.

51. (original) The component of claim 47, wherein the conductors comprise a plurality of traces.

52. (original) The component of claim 51, wherein at least one of the traces is disposed in the bend.

53. (previously presented) The component of claim 49, wherein the attachment portion is substantially horizontal and the offset portion extends substantially downwardly.

54. (original) The component of claim 47, wherein the offset portion lies outwardly of the attachment portion.

55. (cancelled)

56. (original) The component of claim 47, wherein the dielectric layer comprises a polymeric material molded so as to form the offset portion.

57. (original) The component of claim 47, wherein the terminal structures include vias defined by the dielectric layer.

58. (original) The component of claim 47, wherein the terminal structures comprise bonding materials.

59. (original) The component of claim 47, wherein the terminal structures comprise solder balls.

60. (new) A stackable microelectronic component, comprising:

a) a dielectric layer having an attachment portion, the dielectric layer having a first side and an oppositely facing second side, the first side of the dielectric layer in the attachment portion facing in a first direction, the second side of the dielectric layer in the attachment portion facing in a second direction, the dielectric layer having at least one offset portion offset from the attachment portion such that the

offset portion is skewed in said second direction as compared to said attachment portion;

b) a semiconductor chip assembled to the second side of the dielectric layer in the attachment portion;

c) first terminal structures carried by the offset portion of the dielectric layer for connecting the semiconductor chip with external circuitry being above the first surface of the dielectric layer at the offset portion; and

d) second terminal structures carried by the offset portion of the dielectric layer for connecting the semiconductor chip with external circuitry below the second surface of the dielectric layer at the offset portion.